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NOTICE OF THE EXAMINATION OF

AN ANCIENT SEPULCHRAL MOUND.

By JOHN GRATTAN,

Member of Council of the Natural History and Philosophical Society, Belfast.

HAVING accidentally ascertained that a mound situated upon the property of George Newsom, Esq., of Mount Wilson, in the King's County, had been extensively cut into, and several human skeleton's discovered therein; and, subsequently having had the honour of being entrusted by the Marchioness of Downshire with four human Crania procured there by her Ladyship herself, it appeared to me absolutely indispensable that a careful examination of the mound, which is in daily progress of removal, should be made without further loss of time, if any clue as to the probable date of its erection was ever to be hoped for. Accordingly I applied to Mr. Newsom for permission to make the investigation and, my request having been promptly and cordially responded to, availed myself of his willing hospitality, and with the aid of his valuable assistance, succeeded in making a careful examination of the spot, upon the 20th of last May The results though obscure and inconclusive, appear to me, nevertheless, to be of sufficient value to merit preservation. It may chance that they will admit even of present explanation by those sufficiently conversant with the sepulchral usages of the early Irish; but, should they not, it is quite possible that they may yet either contribute to throw light upon some future investigation or receive their own interpretation therefrom.

The mound in question is situated in the parish of Ballymacwilliam, Barony of Warrenstown, in the North Eastern part of the King's County, and will be found set down upon the 11th map of the Ordnance Survey of that county, executed in 1838, as a "fort and principal trigonometrical point having an elevation of 278 above the level of the sea." It will require to be carefully searched for however; as the symbol employed to denote a "fort," is, at least, in the impression before me, in part confounded with, and scarcely to be distinguished from that which indicates the hedge by which the mound is bounded. Its precise position upon the map is the extreme South of the field, upon which the third L of the name of the parish,—Ballymacwi(L)liam—is printed. It occupies the summit of one of several gentle eminences in a plain of considerable extent, designated by the early Irish Annalists as the territory of the plains[a] and from it the following hills are readily discernible;—viz.,

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[a] Page 29 of the Annals of the Four Masters.

Drumcoley, S.S. East about 2½ miles;—Ballynakill, due South 3 miles;—Croghan, West 7 miles, and Carrick, E.N. East 3 miles. The spot itself is nameless, and so far as can be ascertained, is unassociated with any local tradition or superstition whatever, nor was it even suspected of being the depository of human remains, until some years since, when Mr. Newsom commenced removing it for agricultural purposes, its material being a coherent loamy gravel, well adapted for the improvement of reclaimed moorland. Some sixteeen or seventeen skeletons were removed at that time and reburied in another locality. More recently the place has been explored for skulls by Thomas Murray, Esq., of Edenderry, agent to the Marquis of Downshire, and as already intimated, by the Marchioness of Downshire herself, but no detailed examination of it had been undertaken by any one.

This deficiency it was my object to supply.

Originally the mound may have had a diameter at its base of 90 feet, but at the time of my visit, probably one half of it had been removed or disturbed upon its Western and N. Western sides.—From its Southern side, also, a small portion had been cut away in constructing, at a very remote period, a road of which scarcely any at present exists, it having been disused for the last 80 or 90 years, though at one time the direct route from Dublin to the stronghold of Athlone. What remains of this road is 16 feet wide, and ten feet below the summit of the mound, forming the boundary hereabouts, of Mr. Newsom's ground, from which it is separated by a hedge of large and very old thorns. The mound, in its present condition, has a diameter upon the top, at its broadest part, of 42 feet, and an elevation of six feet above its base, towards which it slopes down at an angle of about 30 degrees. Upon its summit was a circular excavation three feet wide by 16 inches deep, lined for half its circumference with quarried stones, having much the appearance of a rudely constructed fire-place, for which purpose possibly it may have been employed by those engaged in taking the Ordnance Survey. It is unlikely that it could have been in any way associated with the original object of the mound.

In order to examine the interior of the mound our first step was to remove the soil for a breadth of four feet, and to a depth of two, completely across it from East to West. After which we proceeded to work abreast inwards from the Western or cut-away side. In this manner were cautiously laid bare the lower extremities of some skeletons, apparently the remains from which Crania had already been obtained. Advancing further we came upon other skeletons perfect and laid at full length each in a separate grave and lying East and West, with the feet towards the East. This section explored, we next cut away on either side of it, proceeding thus over the whole of the horizontal surface, beneath which alone skeletons had been discovered. By this means it was ascertained that the graves lay parallel to each other, at irregular intervals of from two three feet; were excavated out of the otherwise undisturbed subsoil of the field; and rarely exceeded four feet in depth from the surface of the mound. They contained no traces either of wood or metal, nor was any work of art whatever found either on or about them. In one instance, observed by Mr. Newsom, two perfect skeletons lay side by side in the same grave; and in two which came under my own observation, the disjointed members of two skeletons were found buried each in a grave, with, and beneath, an undisturbed skeleton. The osseous remains all exhibited palpable evidence of having been subjected to the slow and long-continued action of moisture. The greater portion of their gelatinous constituent had disappeared, leaving the naturally denser bones light, porous, and exceedingly friable, while the less compact were reduced to the condition of a crumbly pulp, breaking down under the slightest pressure, so as to render their removal in an unmutilated condition perfectly impossible. Such Crania as I procured, were, without exception, removed in fragments, which, when they had became dry, were restored as far as practicable. In fact the majority were broken when discovered, having been crushed in by the weight of the superincumbent material, and some in places were completely corroded into holes, and others were so exceedingly contorted as not to permit of their being correctly restored. In a few of those which had yielded to pressure, the superior cere~~br~~vical vertebra were found lodged within the cavity of the skull, indicating that the individuals had been buried with the head somewhat raised, and the chin resting upon the sternum; indeed, in one instance, a stone was found so placed beneath a skull as apparently to have been employed for the purpose of securing it in such a position. The number of skulls met with by me amounted to ten, of which five only were sufficiently perfect to permit of being satisfactorily restored. Mr. Newsom is of opinion that fully 30 had been disturbed from time to time, prior to my visit; consequently 40 persons at least must have been buried in this mound. Owing to the perishable condition of the bones it was not possible to uncover a perfect skeleton so as to ascertain its *exact* length. The length of three, from the crest of the Ilium to the base of the Os calcis, was, however, measured, and found to be respectively, 3 feet, 3 feet 1½ inches, and 3 feet 2 inches; the thigh bones of each being in order, 16¾, 17½ and 18 inches long: dimensions which would probably indicate an original stature of 5.6 to 5.8 at the utmost.

The individuals were of both sexes, and of ages varying from to 6 or 8 years, up to 70 or 80. In all, *even the very youngest*, the teeth were much worn as if by the attrition of some very hard description of food, the process of degradation curiously keeping pace with the age, as indicated by the teeth themselves. Thus in a child's jaw in which the first permanent molar had made its appearance, and attained an elevation *slightly above* the temporary teeth, it exhibits no indication whatever of wear; while the ten temporary are all very much worn down, the grinders especially. In other cases where the temporary teeth have all been replaced, and some of the wisdom are just making their appearance, the wearing down is much less apparent than in the older and more used temporary teeth of the child. In one case the teeth on the left side of the lower jaw have had the process of wearing arrested, in middle age, by the loss of the antagonistic teeth in the upper jaw; while the incisors and the teeth of the right side have continued to wear down until the crowns are all but gone: and, in two extreme cases, the very *fangs* of the molars have manifestly performed the duty of grinding; the teeth, nevertheless, with one or two exceptions, exhibiting a perfectly sound and healthy condition, strongly indicative of habits referable to an early and very primitive condition of society. Three fragments of the jaws of the lower animals were found, and four or five detached teeth. These have been submitted to Professor Dickie,[b] by whom they are stated to be portions of the upper jaw of a *small Ox*, and of the lower jaws of a *boar* and of a *goat*. The detached teeth are those of oxen also; but, unfortunately the specimens are not sufficient to permit of the variety being identified.

The number of Crania either originally not much injured, or correctly restored, including those obtained by Lady Downshire, is eight adult and one child's. Along with this paper I have given outline sketches of the eight adult Crania taken by means of the Camera Lucida—three views of each, ¼th the natural size; and also tabulated measurements of them. As was to have been expected, increased experience and the sound criticisms of judicious friends have enabled me to simplify, for descriptional purposes, the method of tabulating the measurements obtained by means of the "Craniometer,[c] by substituting measures of diameter, in inches and tenths, at regular intervals along the skull," in place of the transverse and horizontal measurements of my first experiment, and also to expunge some unnecessary facial measurements the bones they were intended to record, being rarely found perfect. By means of these emendations a reasonable amount of attention will enable any one to ascertain with *clearness* and *perfect accuracy* the relative proportions of the Crania to each other, and the special points in which they concide or disagree. For example, if we examine the tabulated measurements at zero, which, phrenologically considered is pretty nearly the situation of the "observing" faculties, we shall find the male skull No. 1, to have a radius of 3.9 inches—No. 2, one of 3.75 whilst that of the young female, No. 7, is but 3.35, being a difference between the extremes of upwards of half an inch. If we examine the same three heads at 30 degrees, the neighbourhood of the "reflecting" faculties No. 1 is now but 4.8 inches whilst No. 2 has reached, 5.1, and No. 7 only 4.5 inches. If we proceed to 60, the locality of "Veneration" they will be found to be respectively 5.0—5.3 and 4.7 inches, a difference of 6-10ths between 2 and 7. At 90, the position of "Self-esteem." they are 5.05—5.35 and 4.8 inches. From 130 onwards Nos. 1 and 7 keep in advance of No. 2—the measurements of No. 7 being as great as those of No. 1 from 130 to 150. So in like manner may any of the other Crania be compared at every point of their median line. The table of diameters gives the breadth of each skull at the points A. and B. upon the several radii laid down upon the sketches; each radius, for this purpose, being divided into three equal lengths, the measurements commencing at the meatus aditorius externus, the diameter of which being also given, we may be said to have three diameters measured upon each radius. The contrasts in this table are not less apparent and striking than in the former, and can be examined with equal facility; which will be sufficiently apparent if we contrast, as in the annexed table, two of the Crania already selected for comparison; viz., Nos. 2 and 7.

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[b] Professor of Natural History in the Queen's College, Belfast.

[c] See last Number of this Journal.

	At 30 degrees.		At 60 degrees.		At 90 degrees.		At 120 degrees.	
Number of Cranium..........	2	7	2	7	2	7	2	7
Length of Radius................	5.1	4.5	5.3	4.7	5.35	4.8	4.4	4.3
Diameter at Meatus Audit.	4.9	4.6	...	...	...	...	...	...
—— A,......	5.1	4.5	5.6	5.2	5.6	5.5	5.2	5.2
—— B,......	4.7	3.9	5.1	4.8	5.3	5.0	4.4	4.8

Thus at 30 degrees No. 2 exceeds No. 7 in length by 6-10ths of an inch, and in the three diameters,—*Meatus* A and B by 3-10ths 6-10ths and 8-10ths. At 60 the same difference in length continues, the difference in the diameters A and B having fallen to 4-10ths and 3-10ths. At 90 No. 2 still maintains nearly the same advantage as to length and predominates at A and B by 3-10ths and 1-10th—Whilst at 120 it exceeds No. 7 in length but 1-10th, is of precisely the same diameter at A—and is *less* by 4-10ths in diameter at B—features indicating an enormous preponderance in No. 7. of the posterior over the anterior region, and which it would be impossible for any amount of artistic excellence whatever to convey adequately to the mind.

Accompanied by these numerical data the following general description of the Crania may now be permitted.

No. 1. The skull of a male probably about 70 years of age.—Bone thick and coarse.—Sutures considerably obliterated.—Teeth very much worn, especially in the upper jaw, in which the fangs of two molars and three bicuspides have been *converted into grinding surfaces*.—Has had the full number of 32.[d] Frontal region narrow; coronal moderately high.—Temporal full.—Parietal and occipital large, the former especially broad above.—Receptaculum Cerebelli moderate.—Cheek bones moderately broad, not prominent—Jaws well proportioned, and little projecting.—Nasal bones imperfect.

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[d] I have been particular in noting the number of the teeth, because some few Irish Crania, of undoubtedly old persons, have been obtained in which no more than 28 teeth had ever been developed, giving rise, in consequence, to some rather hasty conjectures. Such an occurrence is by no means uncommon; the wisdom-teeth being occasionally subject to capricious and unaccountable irregularities. Bell instances a case, from his own experience, in which they did not appear until the age of 65.—Our second illustration is not less instructive; and I have no doubt that a careful examination in the instances referred to, would establish the existence, in the jaws, of their imperfectly developed rudiments.

No. 2. Skull of a male 45 to 50, of singularly beautiful form.—Bone remarkably thin and fine.—Sutures distinct.—Teeth, *including both wisdom teeth* of the left side, considerably *ground down*—lower right wisdom tooth little worn, and upper one but just emerging from the alveolus.—Frontal and coronal regions particularly ample and lofty.—Temporal, parietal, and occipital large and well proportioned.—Cerebellar ample.—Cheek-bones broad, not prominent.—Jaws finely formed, little projecting.—Nasal bones imperfect.—This is so unlike any purely Irish head I have hitherto met with, and yet so free from anything bordering upon accidental or abnormal development, that it would almost appear to me to have been of foreign introduction.

No. 3. Skull of a young man probably between 20 and 25.—Bone tolerably fine, moderately thick; sutures very distinct.—Wormian bones numerous, and upper angle of occipital bone in two distinct divisions.—Teeth not much worn.—Wisdom teeth somewhat below the line of the other molars.—Frontal and coronal region tolerably ample.—Temporal moderate.—Parietal and occipital very large. -Cerebellar enormous.—Cheek bones moderate, not prominent.—Upper jaw not projecting. —Lower jaw absent.—Nasal bones imperfect.

No. 4. Skull of a male, age doubtful.—Probably 30 to 35.—Bone moderately fine and thin.—Sutures very distinct.—Wormian bones large.—Frontal and coronal regions broad and low.—Temporal, parietal, and occipital large.—Cerebellar moderate.—Both jaws absent.

No. 5. Skull of a female, 70 or upwards.—Bone tolerably fine and rather thick.—Sutures almost entirely obliterated.—Teeth very much worn, except upon the left side of the lower jaw, where the process of grinding down has been arrested by the loss of the upper teeth on that side.—Has had the full number of 32.—Frontal and coronal regions very narrow and low.—Temporal moderate.—Parietal and occipital very large.—Cerebellar moderate.—Cheek-bones small, receding.—Jaws well formed, somewhat prominent.—Nasal bones imperfect.—In addition to the Cranial indications of age, the spinal column of this individual was found to have been much curved, as occasionally occurs in very old persons.

No. 6. Skull of a female between 45 and 50.—Bone rather thick, very much corroded.—Sutures distinct.—Teeth considerably worn.—Has had the full number of 32.—Frontal and coronal regions very narrow and low.—Temporal, parietal, and occipital, very large.—Cerebellar moderate.—Right cheek-bone small and retreating, left absent.—Jaws narrow, elongated, and somewhat projecting.

No. 7. Skull of a female from 14 to 18.—Bone coarse, thin.—Sutures distinct.—Teeth perfect, little worn, densely encrusted with Tartar.—Upper wisdom teeth emerging from the alveoli, lower still deeply imbedded in the jaw.—Frontal region short, very narrow.—Coronal moderately high.—Parietal very large.—Temporal and occipital enormous. Cerebellar very large.—Cheek-bones small. Jaws *exceedingly* prominent. Nasal bones broad and *very* flat. From the age of this individual the frontal region may not have attained its full development, but making the utmost allowance for this contingency it is a head of singularly poor type.

No. 8. Skull of a female, age doubtful, probably 25 to 30. Bone thick, tolerably fine. Sutures very distinct.—Frontal and coronal regions broad and low.—Temporal, occipital and parietal large.—Cerebellar considerable.—Both jaws absent.

These eight Crania constitute a group which, however numerically small, is one largely suggestive of reflection, and well-calculated to impress upon us the necessity for extreme caution and a very extensive observation of facts before venturing upon general conclusions. Though all its members are clearly referable to the same date, and to the one very limited spot, buried, too, with all the appearance of having belonged to one sept or tribe, it nevertheless embraces within its compass no fewer than *four* distinct and well defined forms of adult head, which, had they been found disassociated, might almost have warranted the conclusion that they were the representatives of totally different races.—Whether such may eventually prove to have been the case or not it would, as yet, be premature to discuss.

Such, so far as my materials will carry me, is the history of this mound and its contents. What its date, or who its occupants, are questions not to be solved just now. But though, at present, it would be idle to speculate upon its precise era, it will still be something if we can establish for it upon probable grounds, a fair claim to a very remote antiquity. The material of the mound, as already observed, is a coherent loamy gravel. A clean vertical section of it however, exhibited four distinct and well defined strata. The lowermost, commencing at the bottom of the graves, consisted of the original soil, undisturbed except where the graves themselves had been excavated, to a depth of from 20 to 24 inches;—next above this lay a stratum of dark *vegetable* mould varying in depth from 6 to 9 inches;—above this again 12 to 14 inches of marly gravel, similar to the original soil; and finally, a second layer of dark vegetable mould from 8 to 10 inches deep, and continuous with the present surface of the field—; appearances which would seem to indicate that the bodies had all been buried about the same time upon the summit of the natural eminence, in graves sunk some two feet or so beneath its *grassy surface*, and that this grassy surface constitutes the present *lower dark* stratum:—that upon this was heaped some other two feet or so of soil from around the base of the projected mound, which thus had its elevation promoted as well by what was removed from around it as by what was heaped upon it; and that, the work thus completed, the new surface under the continuous influence of atmospheric action and the successive alternations of vegetable growth and decay, gradually acquired the character of the vegetable mould it had itself displaced, to a depth which only a long lapse of ages could have occasioned. Again it must have existed prior to the construction of the old and disused road which skirted it, and have ceased at that time to be known as a place of burial, else it would scarcely have been disturbed. Furthermore, there is in the same locality, just one statute mile distant in a North-Westerly direction (as may be seen upon the Ordnance Maps,) another mound, similar in appearance, and of larger dimensions, the sepulchral character of which, though now ascertained, had also *passed out of traditionary recollection*; although, within some few hundred yards of it are the remains of an old church and church-yard, still, and for ages past, one of the burial places of the neighbourhood. Is it probable that this mound, if it ever had been a recognised place of

Christian burial, could have fallen into such utter desuetude and oblivion, in favour of another site absolutely within view of it? Much more likely is it that it owed its orign to some rare and unexpected calamity, the memory of which had died away, long, long ere the church beside it had an existence.

In Christian burial-places, too, from the date of the earliest times, to the present day, it has been the habit of the Irish to cluster round *the old sanctified spots,* heaping body upon body, until all method and regularity is lost in one confused mass of human debris. Our mound exhibited no such appearance: all the interments bore evidence of having been made about the same period, not a bone having been disturbed or displaced from the time they were deposited, until we laid upon them our unhallowed hands. No doubt the simultaneous burial of 40 bodies or more, necessarily implies the occurrence of some sudden fatality, either by pestilence or the sword; but the early records of Ireland are not without instances of both. The consequence of a battle it cannot have been, else the remains would have been those of adult males only, and it is far from probable that the perpetrators of an indiscriminate massacre would have been at the labour and trouble of erecting such a structure over their victims. Taking all the circumstances therefore, into consideration, it appears to me by no means improbable, that these may have been the remains of the victims of one of the many *pestilence* that are recorded in the Irish annals, buried at a period antecedent to the introduction of our present Christian sepulchral usages.[e] In the absence of more substantial testimony, however, such an inference can be received merely as a plausible conjecture, justifiable only in so far as it may tend to stimulate to fresh inquiry and renewed research.

In an interesting memoir by Dr. Thurnam, published in the sixth volume of the Journal of the Archæological Institute, to which he has kindly directed my attention, he describes a mound named Laurel Hill, near York, examined by him. Though the appearances exhibited many features of resemblance to those already described, there were also some remarkable and important differences.—At Laurel Hill vast quantities of disturbed bones overlay the undisturbed skeletons—a large sepulchral urn was found in the midst of the lowermost deposit of skeletons—numerous fragments of iron, supposed by Dr. Thurnam to have been the fastenings of *wooden coffins* were found in the undisturbed graves, which lay *ten feet* below the surface. Between the length of the skeletons also, in each place, there was a marked distinction; many of those at Laurel Hill being of individuals whose stature could not have been less than from 6 feet to 6 feet 4 inches. On the other hand the reduced sketches of Crania, which accompany the paper, would appear to me, so far as sketches alone admit of the comparison to indicate a somewhat inferior cerebral organization to those discovered at Mt. Wilson. The measurements supplied, however, having been taken according to the method devised by Carus, unfortunately afford no means of testing the accuracy of this conclusion, inasmuch as Carus's method is not only wanting in scientific precision, but absolutely involves serious and *unavoidable* errors—his measures of height not being those of the perpendiculars professed to be measured, but of the hypothenuse of the triangle formed by the perpendiculars and the semidiameter of the base of the Cranium:—as a matter of course, therefore, they must all be more or less exaggerated, according to the varying lengths of the perpendiculars and bases, and consequently, for any scientific purpose, worse than useless. Dr. Thurnam is of opinion that Laurel Hill has been a cemetery of the early Anglo-Saxons. In both the instances of Laurel Hill and Mt. Wilson, the bodies were buried with the feet towards the *East* Has that usage been exclusively Christian—or could it possibly have been derived from some Pagan source, as many of our other ceremonial observances admittedly have been?

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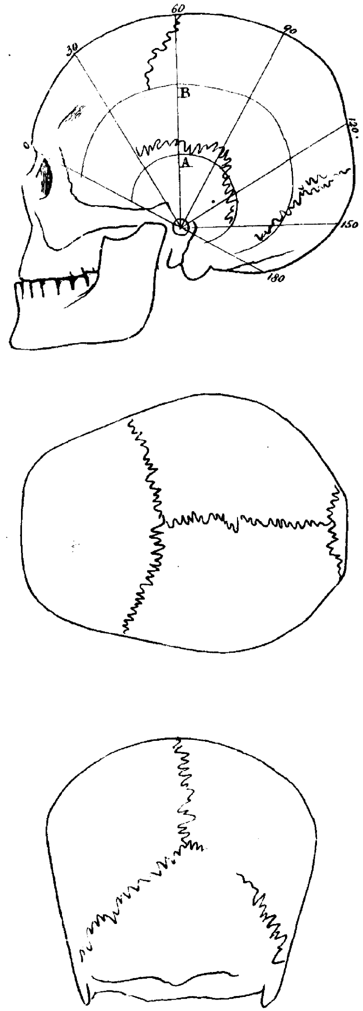
[e] In the Annals of the Four Masters, page 9—A.M. 2820—a great mortality of Parthenon's people is stated to have taken place; and the spot where it occurred to have been named, in consequence, Taimleacht Muintire Parthaloin; upon which the Editor thus comments in note c.—" O'Flaherty states that a monastery was afterwards erected at this place, and that it is situated three miles to the South of Dublin.—It is the place now called Tallaght, and some very ancient Tumuli are still to be seen on the hill there. The word "*taimhleacht*" or *tamhlacht*" signifies a place where a number of persons cut off by plague were interred together.—See Cormac's Glossary *in voce* "*Taimhleacht.*" The word frequently enters into the topographical names in Ireland, and is anglicised Tamlaght, Tawlaght, Tallaght."—That pestilences were of frequent occurrence, is further evident, from the fact that three are recorded in the same Annals between the years 543 and 553 of our present era.

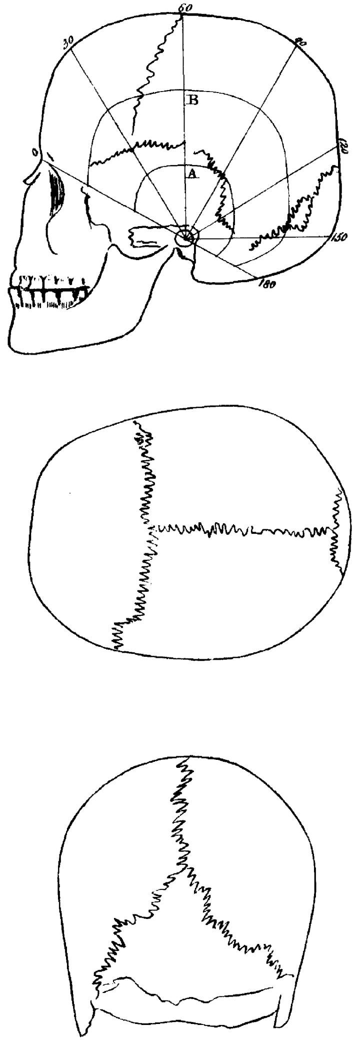
Ulster Journal of Archaeology. 1853.

Tabulated Measurements of 8 Crania from ancient Sepulchral Mound, Mount Wilson.

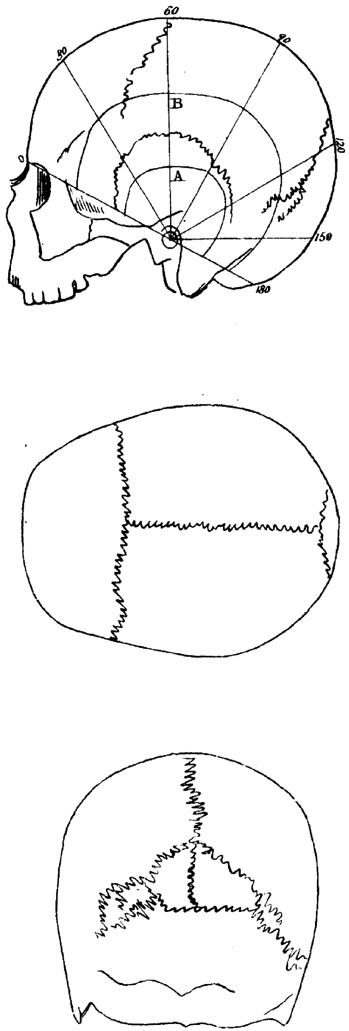
		Number of Cranium.		1	2	3	4	5	6	7	8
Median Sections in degrees and inches.	L. Maxilla	Angle of Lower Maxilla.	Ang.	95	88	Absent.	Absent.	90	90	90	Absent.
			Rad.	2.6	2.6			2.65	2.5	1.9	
		Symphisis Menti.	Ang.	61	60			61	61	62	
			Rad.	4.9	4.6			4.65	4.75	4.0	
		Edge of Incisors.	Ang.	46	43	46		42	43	41	
			Rad.	4.2	4.1	4.15		4.1	4.1	3.85	
		Naso-frontal Suture.	Zero	0	0	0	0	0	0	0	0
			Rad.	3.9	3.75	3.7	3.5	3.75	3.7	3.35	3.8
	Frontal Bone.		6	4.2	4.1	4.0	3.85	4.05	4.0	3.65	4.0
			10	4.3	4.15	4.05	3.95	4.1	4.0	3.8	4.0
			20	4.6	4.7	4.4	4.25	4.3	4.1	4.25	4.5
			30	4.8	5.1	4.65	4.5	4.55	4.3	4.5	4.65
			40	4.95	5.25	4.8	4.6	4.65	4.45	4.65	4.6
			50	5.0	5.3	4.9	4.6	4.65	4.48	4.65	4.55
			60	5.0	5.3	4.9	4.65	4.7	4.45	4.7	4.45
		Coronal Suture.	Ang.	64	62	59	68	60	62	66	62
			Rad.	5.0	5.3	4.9	4.7	4.7	4.45	4.7	4.45
	Parietal Bone		70	4.95	5.3	4.95	4.65	4.8	4.5	4.75	4.5
			80	5.05	5.35	5.05	4.75	4.9	4.7	4.8	4.6
			90	5.05	5.35	5.1	4.85	4.9	4.75	4.8	4.55
			100	5.0	5.2	5.0	4.8	4.7	4.65	4.75	4.4
			110	4.7	4.9	4.8	4.7	4.5	4.55	4.55	4.2
			120	4.4	4.4	4.5	4.5	4.25	4.3	4.3	4.1
		Lambdoidal Suture.	Ang.	126	—	116	122	123	122	126	122
			Rad.	4.3	—	4.6	4.3	4.2	4.2	4.2	4.1
	Occipital Bone		130	4.2	4.15	4.2	4.3	4.0	4.1	4.2	3.95
			140	3.95	3.9	3.9	4.1	3.75	3.9	3.95	3.7
			150	3.6	3.55	3.6	3.8	3.4	3.5	3.6	3.4
			160	3.15	3.0	3.15	3.3	2.9	3.0	3.1	2.6
			170	2.55	2.15	2.8	2.9	2.15	2.4	2.3	1.95
			180	1.9	1.55	2 4	2.5	1.85	1.8	1.75	1.65
		Foramen Magnum.	Ang.	190	189	197	197	187	185	190	183
			Rad.	1.45	1.3	1.9	1.95	1.7	1.7	1.45	1.55
Transverse diameters and other Measurements.		Greatest Circumference.		21.1	21.3	20.6	20.6	20.0	20.3	20.0	20.0
		Approximate capacity in Cubic Inches.		90	100	94	—	80	78	84	77
		Diameter at Zygomata.		5.1	5.5	5.1	—	4.8	—	4.8	—
		Do above external angle of the Eye.		3.9	3.9	4.0	4.0	3.7	3.6	3 5	3.8
		Do. Do. Meatus Auditorius Externus,		4.8	4.9	4.9	—	4.7	4.7	4.6	4.7
		— at 10 degrees, point	A.	4.8	4.8	4.4	—	4.2	—	4.1	4.3
		— — — — —	B.	3.8	—	3.8	—	3.6	—	3.3	3.7
		— — 30 — —	A.	4.9	5 1	4.8	—	4.7	4.6	4.5	4.8
		— — — — —	B.	4.4	4.7	4.5	4.7	4.2	4.3	3.9	4.5
		— — 60 — —	A.	5.5	5.6	5.4	—	5.0	5.1	5.2	5.2
		— — — — —	B.	5.2	5.1	5.1	—	4.4	4.8	4.8	4.8
		— — 90 — —	A.	5.6	5.6	5.8	5.6	5.4	5.3	5.5	5.3
		— — — — —	B.	5.7	5.3	5.5	5.1	5.0	5.0	5.0	4.9
		— —120 — —	A.	5.1	5.2	5.5	5.3	5.2	5.0	5.2	5.1
		— — — — —	B.	4.5	4.4	4.6	4.6	4.0	4.2	4.8	4.2
		— —150 — —	A.	4.8	4.9	5.3	—	4.7	4.6	4.7	4.7
		— — — — —	B.	3.5	3.4	4.0	3.7	3.8	3.7	3.4	3.5



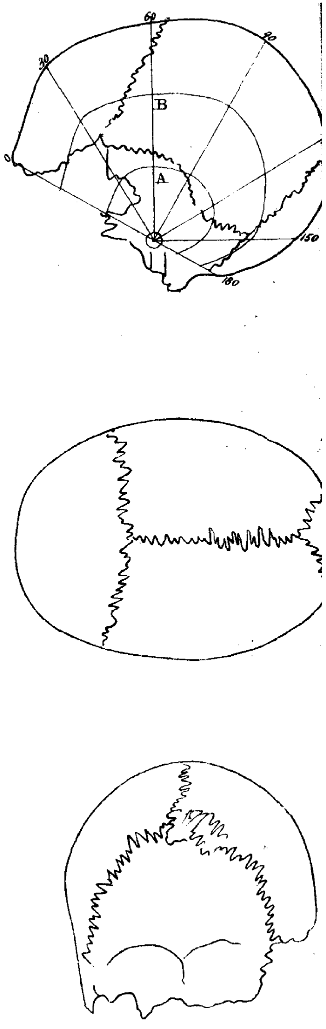
Nº 1. aged about 70.



Nº 2. from 45 to 50

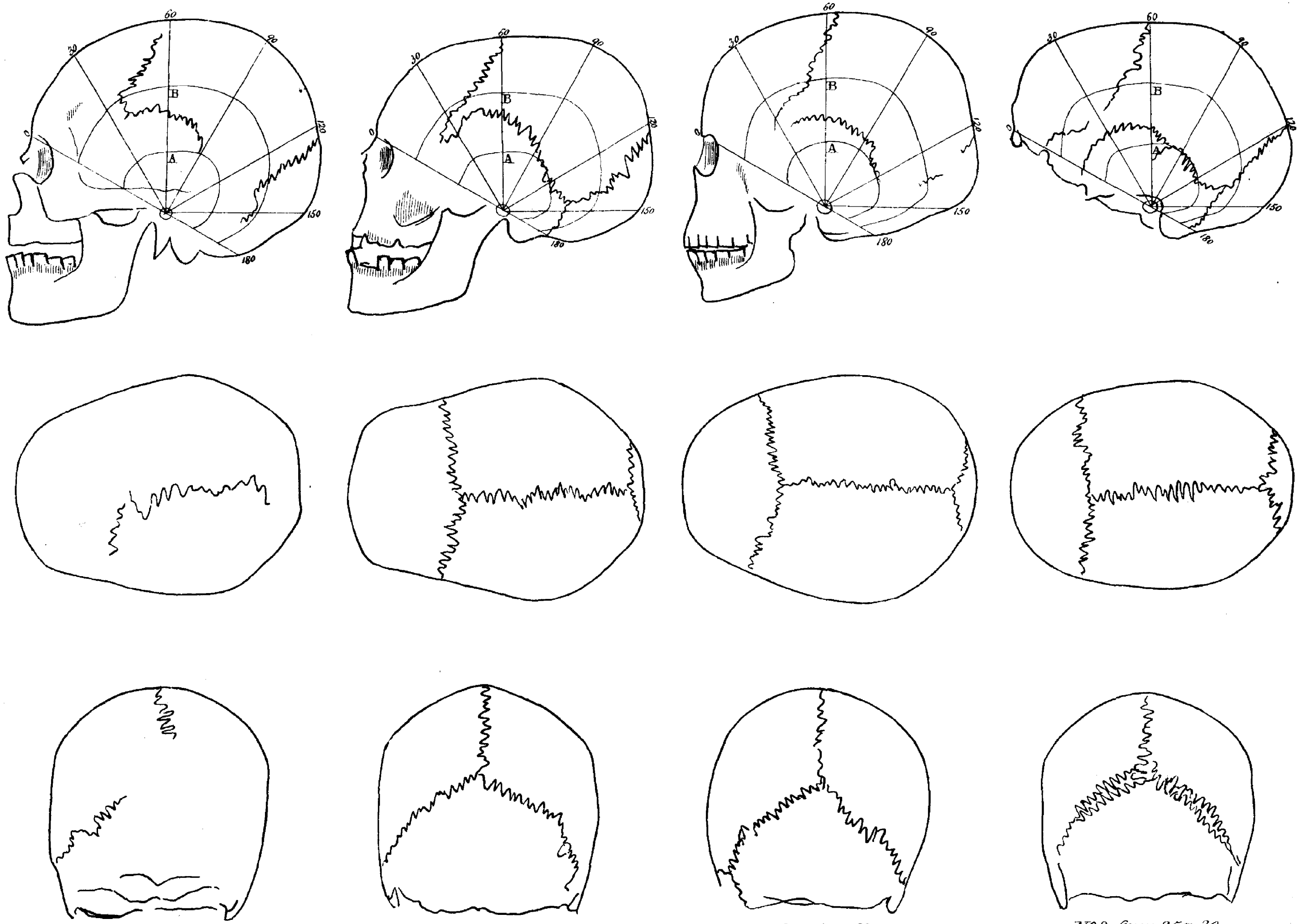


Nº 3. from 20 to 25



Nº 4. from 30 to 35

Outline Sketches of the Crania of 4 Males from Ancient Sepulchral Mound. Mr Wilson.
¼th the size of nature, lineal measure



N^o 5. aged 70 or upwards

N^o 6. from 45 to 50

N^o 7 from 14 to 18

N^o 8. from 25 to 30.

Outline Sketches of the Crania of 4 Females from Ancient Sepulchral Mound M^r Wilson,
1/4^th the size of nature, lineal measure.